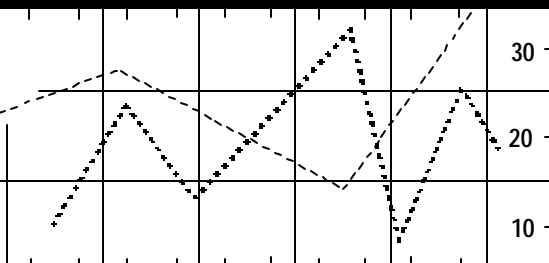


# Financial Market Commentary



No.1

September

1999

## Public Employee Retirement Administration Commission

ELIZABETH E. LAING  
*Chairman*

A. JOSEPH DENUCCI  
*Vice Chairman*

JOHN R. ABBOTT

MICHAEL J. DIRRANE

KENNETH J. DONNELLY

DONALD R. MARQUIS

ANDREW S. NATSIOS

JOSEPH E. CONNARTON  
*Acting Executive Director*

## PERAC

5 Middlesex Ave.  
Third Floor  
Somerville, MA 02145  
Ph: 617.666.4446  
Fax: 617.628.4002  
Web: [www.state.ma.us/PERAC](http://www.state.ma.us/PERAC)

Published by the  
PERAC Communications Unit

## The Stock Market: Laboring Between Extremes

Robert A. Dennis, C.F.A.

*Investment Unit Director, PERAC*

**L**abor Day weekend 1999 brought a sense of melancholy to those of us who lamented the passing of another glorious New England summer, but it also brought a sense of confusion to those looking to find some insight into the future direction of the U.S. stock market.

In one widely-read financial weekly published on Saturday of that weekend, there was a featured article by highly respected economist and investment strategist Edward Yardeni, known for his insightful calls on economic and market trends over the past decade. The article was titled, "Next: Dow 8000?" and subtitled, "A new stock valuation model shows why the market looks wildly overpriced." Dr. Yardeni is a believer in the Federal Reserve's Stock Valuation Model, which derives a "fair value" level for the Standard & Poor's 500 Index by dividing the consensus earnings estimates for the S&P 500 stocks for the coming twelve months by the yield on the 10-year U.S. Treasury bond. Data for the past twenty years shows a consistent relationship between actual stock prices and the fair value level derived from this model. In recent months, this model has indicated that the stock market is 40-50% overvalued. This has been the most extreme overvaluation since a reading of 34% just prior to the market's sharp decline of October 1987.

Dr. Yardeni has devised some new mathematical formulas in an effort to more explicitly identify the variables that together determine the value of the stock market. His objective is to revise the basic Fed model to account for why the aggregate of all buyer and sellers in the market believe that today's prices are right despite the warning signs flashed by this and other quantitative models. He notes that the basic model does not differentiate stocks from bonds in terms of their basic characteristics; in reality, returns from the bond are fixed for the ten-year period while those of stocks are subject to business risk and changing earnings expectations beyond the twelve months used in the model. He observes that the risk component in the model is trending higher, as seen in the widening yield differential between corporate bonds and U.S. Treasury bonds while, at the same time, industry analysts' projections for long-term earnings growth are at an all-time high, far in excess of recent growth rates for Gross Domestic Product (GDP). Some of his mathematical formulae and the concepts behind them may not be easy to grasp, and this is definitely still a work in progress. Nevertheless, Dr. Yardeni's conclusion is devastatingly simple: "The stock market is clearly priced for perfection" while assuming "perpetual prosperity ... uninterrupted." The possible remedies for the market's extreme overvaluation, according to this model, are much higher actual earnings growth, much lower

“  
... the  
jury is  
still out  
as to the  
market's  
course  
as we  
head into  
the 21st  
century.  
”

interest rates, or, most ominously, “a sharp pullback in the Dow to just under the 8000 mark.”

Readers of a highly respected national newspaper found a dramatically opposite take on the market. The Sunday business section was led by an article entitled, “Imagining the Dow at 36,000,” in which a columnist reviews the new book “Dow 36,000: The New Strategy for Profiting from the Coming Rise in the Stock Market,” by James K. Glassman and Kevin A. Hassett, both of the American Enterprise Institute. The authors see the Dow, currently in the 11,000 range, reaching that seemingly fanciful level within 3-5 years. Their thesis is that investors are gradually repudiating the long-held principal that stocks are much more risky than bonds. They do not dispute that stocks have much more short-term volatility than bonds but they assert that it's the long-term results that should be emphasized. Their primary argument is that, over long-term periods, stocks are no more risky than bonds since their returns match or exceed those of bonds. The authors note that the real (inflation-adjusted) return of stocks has averaged about 7% over almost 200 years, while the historical real return from bonds is less than 2%. Returns are indeed volatile, however; since 1926, large company stocks have posted negative annual returns more than one quarter of the time. Nevertheless, history shows that the longer one's holding period, the less volatile the returns and the greater likelihood of a positive return. Over the 64 overlapping 10-year periods from 1926 to 1998, S&P stocks scored positive returns 62 times, and they were positive for every 15-year period over this time.

Looking at the declining risk of stocks over time in another way, the standard deviation of stock returns over a one-year period is 18% but drops to 5% over ten-year periods and to a very low 2% over 30-year periods. These long-term risk figures are lower than those not only of long-maturity Treasury bonds but even of short-term Treasury bills. The authors note that the worst inflation adjusted return by stocks over a 20-year period was an annual average of 1% while for bonds it was - 3.1%. Stocks have outperformed bonds 61% of the time over 1-year periods but 92% of the time over 20-year periods and 99% of the time over 30-year periods.

The authors point out that the risk premium for holding stocks rather than bonds has been gradually declining over the past several decades as increasingly informed and educated investors have learned about the long-term characteristics of stock performance. They conclude that stocks will rise to more than three times their current value, which is the mathematical result following from investors' rational conclusion that stocks are no more risky than bonds at all and from the previously significant risk premium attached to stocks being reduced to zero in the marketplace.

The dueling commentaries over that weekend epitomized the ongoing debate that has raged in academic and Wall Street circles over the valuation of the stock market. On the one hand, there have been those who, along the lines of Dr. Yardeni, have pronounced the market very vulnerable because of its extremely high standing relative to conventional benchmarks such as price/earnings ratios. On the other hand, there are those like Glassman and Hassett who proclaim that we are in the midst of a new era of enlightenment. They believe that the traditional yardsticks of value no longer apply because we are living in an historical “new economy” marked by great technological change, higher productivity, stable prices, and low interest rates. Proponents of this “new paradigm” have certainly held the upper hand in recent years, but the jury is still out as to the market's course as we head into the 21st century.

Many investors might have been distracted from their normal Labor Day weekend activities by reading either of the two extreme market forecasts discussed above. The investors who probably had the most relaxing weekend were those who avoided the newstands but instead read the latest market analysis by Abby Joseph Cohen, Goldman Sachs's venerable investment strategist. While expecting the market to continue to advance but at a more moderate pace, she states, “The market we think is roughly at fair value.” ♦